SX4: ROBOTIC APPROACH TO URETEROPELVIC JUNCTION OBSTRUCTION IN A BIFID PELVIS: OPERATIVE DETAILS

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Background Duplications of the urinary collecting system are the most common anomalies of the upper urinary tract. They can be complete or incomplete and associated to other anomalies such as vesicoureteral reflux, ureterocele and ectopic ureter. Pelviureter junction (PUJ) is the most common site of obstruction in the urinary tract. Although duplications and PUJO are common, the simultaneous presence of both anomalies is rarely encountered. In incomplete duplicated systems, PUJO usually affects the lower moiety.

Materials and methods We report the case of a 5 year-old boy with left bifid renal pelvis and treated by robot-assisted pyeloureterostomy.

Results MIS has became increasingly popular in pediatric urology even if the evolution from extirpative procedures to reconstructive ones has been slower because of skills needed in intracorporeal anastomosis. Robotic technology allowed to overcome these limits and shorten the learning curve. These potential advantages are attributed to wristed instrumentation with 7 degree of freedom, a better ergonomy of the surgeon and 3D visualization.

In our case robotic technology allowed a perfect visualization of the anatomy and easily taper the surgical technique to condition of the patient obtaining effective treatment.

Conclusions Reconstructive options in incomplete duplicated urinary system can be different because of the wide anatomic variants. Individualized treatment on the basis of pre- and intraoperative findings is mandatory to obtain effective treatment. Robot-assisted pyeloureteroanastomosis is a feasible option in case of bifid renal pelvis with preserved function of both upper and lower moieties.

Key words pyeloureterostomy, bifid renal pelvis, robot-assisted surgery